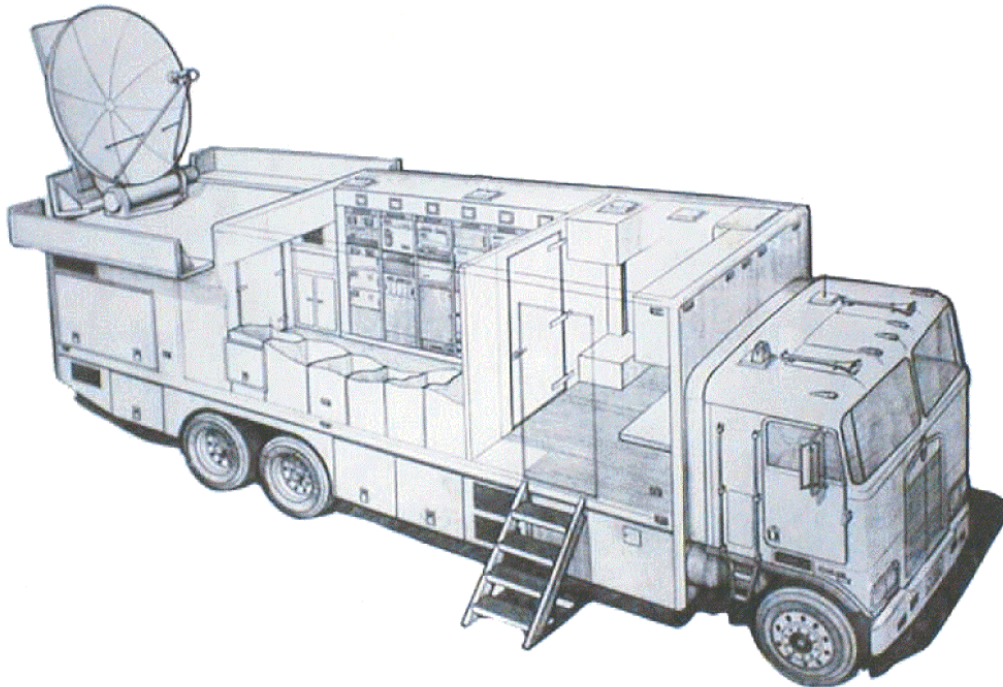


## FEMA Multi-Radio Van (MRV) Diagrams

### MRV Floor Plan



The MRV van body is divided into three separate areas. The vestibule at the front is just a small office/work area inside of the door into the van.

Generators are mounted on both sides at the rear of the van with a storage area between them. Each generator is capable of supplying power for the entire van's operation. Special measures were taken during construction to limit the amount of generator noise that enters the screen room.

The center portion of the van is the screen room. The walls of this portion and the doors at each end are sealed against RFI (Radio Frequency Interference). This prevents electronic interference from either entering or leaving the vehicle.

The Screen Room consists of an aisle way for the operators, with racks of equipment down both sides of the room. The floors contain tracks so that chairs may be secured for operating radios while in transit. The curbside of the room contains all of the equipment for radio support. The streetside contains mostly equipment for telephone support, along with some computer and video equipment.

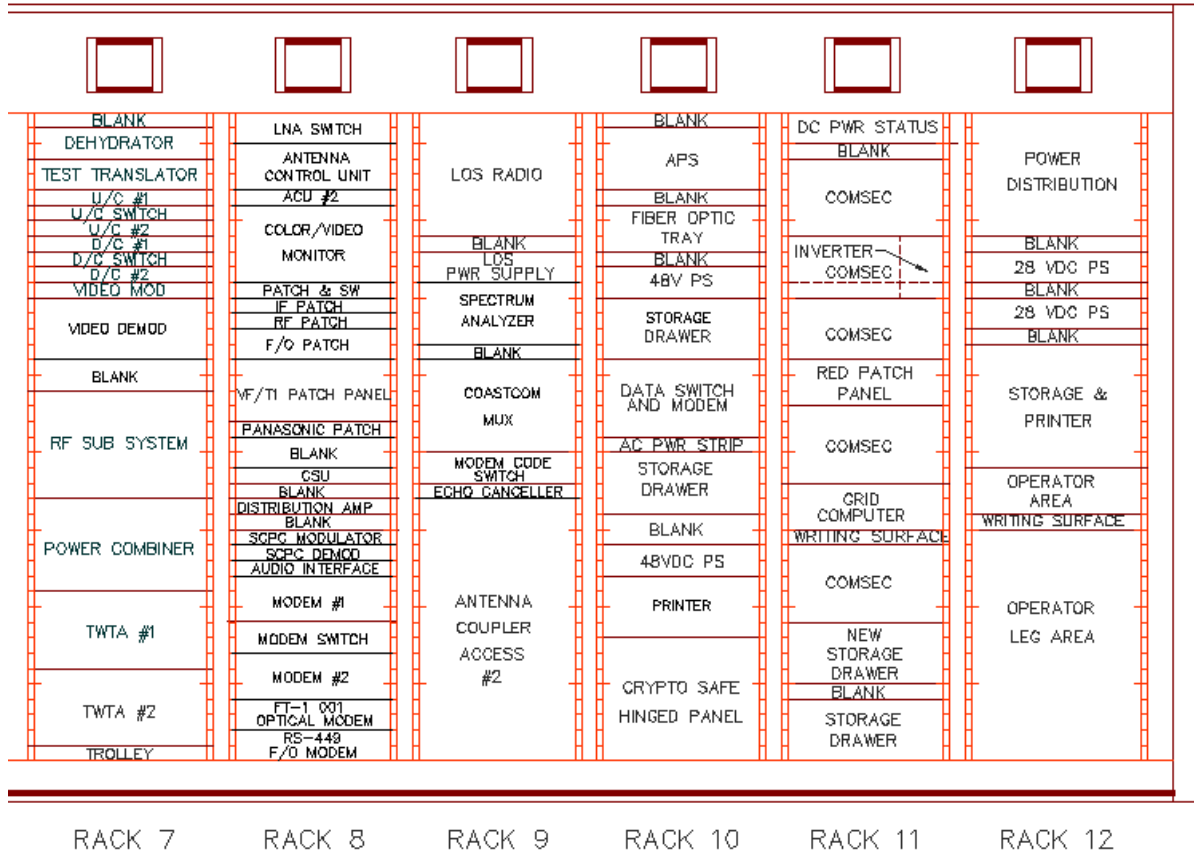
Around the bottom of the van are large storage compartments for supplies and six Environmental Control Units (ECUs). The ECUs are used to maintain the proper environment for the safe operation of the equipment, even in the most extreme climates.

[illegible]

The radio operator positions are located at racks #2 and #4. Each has the ability to operate any or all of the radios by using an ORBACOM audio control system through the operators' touch screen monitors. The main electronics for the ORBACOM is in the top of rack 1.

MRV-diagrams.html

## Screen Room Streetside Equipment Racks



All of the racks on this side of the screen room are standard 19" equipment racks with the exception of Rack 7. This rack is extended into the aisle an additional 4" to 8" to accommodate the larger satellite equipment.

Racks 7 and 8 contain all of the equipment for the Ku Band satellite system. This includes the satellite transmitter and receiver equipment and the associated control equipment. Through patch panels it may be configured to up and down link digital service (telephone, data, video conferencing), broadcast quality video, or both simultaneously.

Rack 10 contains fiber optic equipment for remoting telephone service and a computer system for keeping station logs and programming other equipment items.

Rack 12 contains the power distribution for the screen room. All of the circuit breakers (both AC and DC), power monitoring meters, and generator starter switches are contained on the panel in the top of this rack.

### **Vestibule (Office/Work Area)**

The overall dimensions of this forward part of the MRV are 8' wide by 8' long. The area contains a small refrigerator and microwave.

The desk area is a 2' by 6' countertop surface in the forward most section of the MRV. This area contains electrical power outlets and telephone jacks to facilitate use as a small office. Cabinets above the countertop provide storage of the manuals for the maintenance and operation of the vehicle's equipment.

The main power distribution panel is against the streetside wall with power source selection switches, circuit breakers, power metering and heating and air conditioning system controls.

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**Federal Emergency Management Agency**